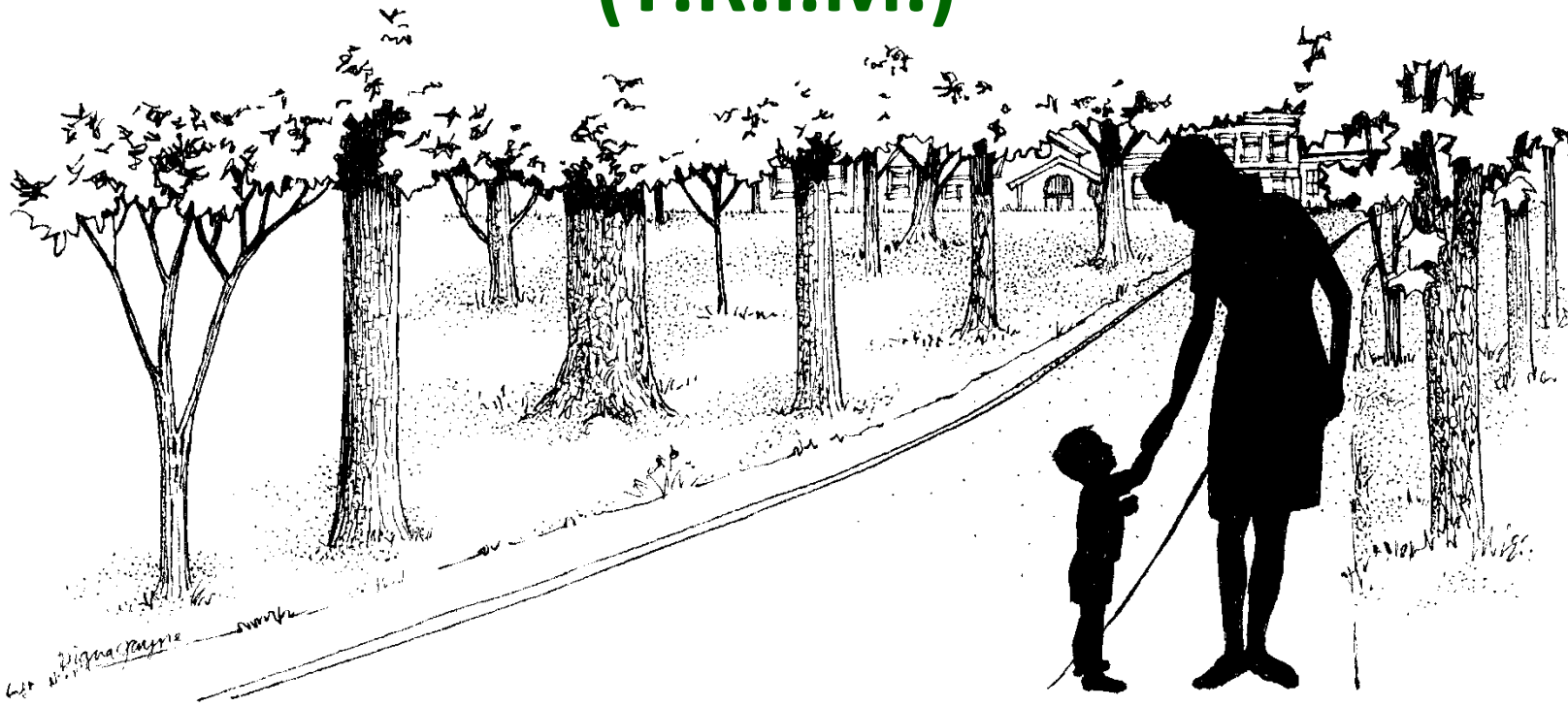
Tree Resource Improvement & Maintenance (T.R.I.M.)



Application Workbook

Missouri Department of Conservation

Forestry Division

Community Forestry Program

2013

New for 2013

- A new awareness campaign by MDC Forestry Division may choose several grant submittals as possible partners to help us promote our new campaign called TREES WORK. If you are willing to help promote this campaign through use of logos and key messages (provided by MDC) and possibly larger events please indicate on your narrative that you are willing to take on extra work. This will greatly help promote this initiative and help community forests statewide.

Continued from 2012

- Dependent on budget approval, one to three $25,000 maximum grants will be awarded to cities working on data collection or creation of management plans.
    - All applications for increased level will be evaluated based on the same criteria as all other grants.
    - Any city or group requesting this larger grant should also consider applying at the regular level.
- FYI – Multiple entries from one city or group are allowed. TRIM Grants may be used for arboricultural training such as Municipal Forester Institute, MW-ISA, and MCFC.

INDEX

REQUIREMENT 1

Estimated Project Costs and Cost Share Request Form

Preparing **ESTIMATED PROJECT COST WORKSHEET**

Applicant & Project Information

The first part of the request form asks for project information. Please be sure to:

1. Provide all requested information.
2. Make sure the address given is one where pertinent information can be mailed.
3. Clearly indicate all types of activities that your proposed project will involve regardless if cost is associated with them.

Provide Costs Associated with Project

Now list project cost estimates. This section should be completed after you obtain all necessary estimates (i.e. estimate from a nursery, a consulting forester, a professional arborist). The estimates should be on the company's letterhead. You will want to have the estimates in front of you because you will refer to them frequently when filling out the worksheet.

**** Remember to clearly document all administrative costs, in-kind labor, donations and discounts. The review committee must have no question as to how you arrived at amounts for each cost.****

A. Reimbursable Costs

Start by filling out the *reimbursable* costs section. These are examples which are eligible for cost share funding.

Reimbursable costs include:

1) Contract fee to develop tree management plan, materials, inventory, etc.
2) The purchase of materials
3) Rental of equipment

B. Non-Reimbursable Costs

Now fill out the *non-reimbursable* costs. These are expenses which may be part of your project, but which cannot be funded by cost share. They may be used to fulfill your part of the match.

Non-Reimbursable costs include:

1) Administrative costs
2) Paid employee labor (to remove, plant, or prune trees, to attend training, etc.)
3) Donated materials
4) Nursery discounts (must be shown on planting costs estimates)

C. Total Estimated Project Cost

Sum the *Reimbursable Costs* and sum the *Non-reimbursable Costs*. Transfer those amounts to the back of the form, Line C.

D. Total Estimated Project Cost (cont.)
Enter the amount from Line C, front of form.

E. MDC Cost Share Computation
Calculate the MDC share by taking 60% of the *Total Estimated Project Cost*, and enter it on the space provided.

If your community is a Tree City USA figure an additional 15% of the total project cost and write the number on the *Tree City USA Bonus* line. For a list of certified communities please visit http://www.arborday.org/programs/treeCityUSA/map.cfm .

If you have won a Missouri Arbor Award of Excellence figure an additional 5% of the total project cost and write the number on the *Missouri Arbor Award of Excellence Bonus* line. For a list of the most recent winners please contact your local MDC Forester.

To figure the *Total MDC Cost Share* add together the *MDC Cost Share*, the *Tree City USA Bonus*, and the *Missouri Arbor Award of Excellence* bonus.

**** For the majority of these grants, the total MDC Cost Share cannot exceed the total of reimbursable costs figured in the Estimated Project Costs worksheet or $10,000 which ever is smaller. In 2012-2013 cycle, the opportunity to have a larger grant may increase this amount. Compare the *Total MDC Cost Share* and the *Reimbursable Costs* total and enter the smaller amount on the line for *Total MDC Cost Share*.****

Signatures

A. Applicant
The last section of the Request Form requires the signature of the individual making the application.

B. **Missouri Department of Conservation Forester Signature**
A minimum of 15 days prior to the application deadline you must have consulted about your project with the MDC forester who works in your county. See page 8 for a listing of MDC Regional Offices.

This consultation is to allow MDC an opportunity to identify problems associated with your project early enough that you can make some changes prior to the deadline. The consultation *does not* guarantee that your project will be funded.

If it is physically impossible for the forester to sign your form it is permissible to submit documentation *from* the forester with your application indicating that he/she has reviewed your project and they are not aware of any concerns or problems associated with it. That documentation may be a letter, an e-mail, etc.

REQUIREMENT 2
Concise Narrative

Your application must include a narrative that describes exactly what you are proposing to do. You must connect your proposed project to long-range goals for your community forestry. How does your proposed project fit with a planned approach to tree management?

Be sure that your narrative includes detail on the following:

- How this project fits your tree management program
- Participants and their roles (employees, contractors, volunteers, business or civic sponsors, etc.)
- Facilities and equipment needed to accomplish project
- Name and address of individual charged with administering the project
- End product or result of project
- A completion timetable

The narrative is your opportunity to sell your project. Choose your words carefully. Be sure to address the above points, but note the limit of 1,800 words.

REQUIREMENT 3
Maps

Location Map
Include a map which shows where your project will be located within the community. You may use a city or county street map with the site marked or highlighted. If a sketch is drawn, show major highways, streets, and central business district. For rural areas, show proximity to roads, towns, and other important features.

If you've proposed activities such as an inventory or ordinance development which includes all or most of a community, you can attach a label on the map indicating that the proposed project encompasses the entire town.

Tree removal and/or pruning project must also be mapped.

Tree Planting Map
If your proposed project involves any tree planting you will need to provide an accurate plan view drawing of the proposed planting project. This plan view drawing should include buildings, utilities (above and below ground), streets, walks, existing trees, a north arrow and be drawn to scale. Your map must be clear enough that someone unfamiliar with your project would know the exact location and type of each tree to be planted. The planting map must show individual trees and the place where you will plant them. The tree planting map need not be professionally drawn. It simply must clearly show what you are proposing.

Please work closely with your MDC forester to assure that you've chosen the right trees for the location you are planting. You might look at the free MDC publication called *Missouri Urban Trees*. This color booklet will help you match planting site conditions to tree requirements. It is available on the web at http://mdc.mo.gov/sites/default/files/resources/2010/06/8045_5179.pdf .

In general, projects which propose planting a diversity of trees are more desirable than those which are heavy to one single type of tree. Strive for a mix of different types of trees to minimize damage or loss from weather, insects, diseases, etc.. For example Oak, Dogwood, and Maple would provide more diversity than Sugar Maple, Red Maple, and Amur Maple.

If you feel that planting one single species is appropriate and desirable for your planting site, you should take a few minutes in your narrative to explain why. **Under no circumstances will the planting of ash be funded.**

Emerald Ash Borer (**EAB**) is an exotic beetle found in numerous states in the U.S. (including Missouri) and in Canada. Since its discovery, EAB has:

- Killed millions of ash trees
- Caused regulatory agencies to enforce quarantines and fines to prevent potentially infested ash trees, logs, or firewood from moving out of areas where EAB occurs
- Cost municipalities, property owners, nursery operators and forest products industries tens of millions of dollars.

For more information check out http://extension.missouri.edu/emeraldashborer/

REQUIREMENT 4
Itemized Budget

Secure cost estimates for the proposed project from a nursery, consulting forester, professional arborist or other sources as needed to complete your project. Cost estimates must be written on the company's letterhead.

It may be to your advantage to obtain two or more estimates to compare costs. However, only the estimate(s) which are used to develop the costs on your *Estimated Project Cost Worksheet* and *Cost Share Request Form* should be included in your proposal.

Tree Planting Projects

If you are planting trees, the estimate should include:

- A complete list of the trees to be planted, including tree size and species. Deciduous trees must measure from 1 to 3 inches in caliper and evergreen trees must be 6 to 12 feet in height.
- The planting costs. Please ask the tree supplier to list the tree planting costs separately as some of the costs are reimbursable and some are not.
- The contract supplier **must** guarantee one year's survival on all trees. This should be clearly stated on the estimate.

If you are using paid employees to plant the trees, base your estimate on actual labor costs. If you are using volunteers to plant or install trees, estimate volunteer time at the rate of $10.00 per hour per person.

You or your planting contractor must use the ***How To Plant A Tree*** publication created by MDC. If trees are not planted to these specifications, the inspecting MDC forester will have the option to withhold funding until the trees are properly installed or to deny payment if the work fails to conform to the **detail** after request to correct from the local forester. See your MDC forester about any variance from these specifications.

REQUIREMENT 5
Three-Year Tree Maintenance Plan

If your project involves tree planting, you will need to include with the application a three-year maintenance plan which describes in detail post-planting tree care procedures and who will be the caretakers. The maintenance plan must minimally include watering, controlling of pests removal of stakes, and re-mulching for three years after planting.

If your project involves the removal of invasive plants you must also provide a three-year maintenance plan. This plan must outline steps you will take to ensure the invasive that was removed does not return. Be sure to identify who will be responsible for implementing this plan.

Take the time to develop this section fully. You must show that you clearly have the capability, resources, and people to assure that the trees are adequately maintained. This section gets close scrutiny.

It is permissible to use volunteers to do the work but you should outline a back-up plan in case the volunteers fail to show or are not available during the summer.

REQUIREMENT 6
Letter of Permission

Projects must be located on **public property**. Public property includes land owned by a city, county, or state agency and land owned by a public school, volunteer fire department, etc. Private schools or institutions and property owned by quasi-public entities (neighborhood common ground, churches, YMCAs) do not qualify for funding.

If you are proposing a project on public property that you do not directly own, you must include a letter of support from the department or agency which owns the property.

For example:

- A neighborhood association wants to improve a neighborhood park by inventorying the trees, removing dead trees, and planting new ones. A letter of support from the city parks department would be needed for the application to be funded.

- A community wants to plant trees on state highway right-of-way to reduce noise. A letter of support from the Missouri Department of Transportation would be necessary.

REQUIREMENT 7
Publicity Plan

All applications must outline how the work completed will be shared with citizens in the community. You must articulate how you will publicize the work and give credit for MDC's contribution to the project. Projects where there is no attempt to publically share MDC's contribution will not fair very well.

This section does not have to be elaborate. Some publicity ideas include running an article in your local paper, inviting the media to come when you're doing work (i.e., planting trees, pruning, hosting a workshop), and inviting the media to come for the formal check presentation at the project's completion. Think creatively! You might also post information about the project on your city's or organization's website or run an article in your community's newsletter.

You will be required upon completion of your project to submit proof that you have implemented your publicity plan.

REQUIREMENT 8
Two Copies

Two complete copies of all documents are required for each application. This is especially important to assure that good quality maps are submitted. If two copies of all elements are not sent the application will be incomplete and cannot compete in the cost-share program.

Check List for Success

- Send **two copies** of complete application.
- Double check your math on the ***Estimated Project Costs Worksheet*** and ***Cost Share Request Form.***
- Be sure your **Concise Narrative** addresses all of the bulleted points. Consider using each bulleted point as a heading to be sure you address all areas. Keep your **Concise Narrative** crisp and to the point. A maximum of 1,800 words is allowed.
- Clearly label all parts and features on all maps.
- The **Itemized Budget** must explain all costs listed on the ***Estimated Projects Costs*** and ***Cost Share Request Form***. The review committee will need a clear understanding of how you arrived at all costs associated with your project.
- If you are planting trees or removing invasive plants, be sure to include a **Three Year Maintenance Plan**. The plan must outline the activities that will be undertaken and it must identify the person responsible for assuring that the work is carried out.

CHECK LIST

To make sure your application is complete use the following checklist.

- □ *Estimated Project Costs/Cost Share Request Form*
- □ Concise Narrative
- □ Location Map
- □ Plan View Drawing (if tree planting)
- □ Itemized Budget
- □ Three Year Maintenance Plan (if tree planting)
- □ Publicity Plan
- □ *Cost Share Request Form* must be signed by Applicant and MDC Forester
- □ Letter of Permission (if applicable)
- □ Two Copies of the Entire Application

HAZARD TREE RECOGNITION

Most of us recognize the value and enjoyment that trees add to our everyday lives whether in a forest setting, a streetscape, a park, or in our own yard. However, we are often unaware of the danger that exists associated with tree defects that can potentially cause death, personal injury or property damage.

Interest in hazard trees and their management has dramatically increased in recent years due to liability concerns resulting from court decisions and preventable accidents. Recognizing tree defects that lead to hazardous trees is the first step in taking the corrective management actions necessary to protect lives and property.

A tree is recognized as being "hazardous" when two conditions are met:

1. The tree has structural defects that are likely to cause the failure of all or part of the tree.

2. The tree has "targets" beneath it that could be struck by all or part of the tree as a result of tree failure. These targets are most commonly; people, vehicles, buildings or objects such as street lights, picnic tables or fences.

Please note that a tree is not hazardous just because it is "ugly", produces an unwanted fruit (i.e. Sweet-gum Balls), or its root system is causing problems (i.e. pushing up sidewalks).

Hazardous defects are the signs and symptoms that a tree is failing, but recognizing and evaluating these defects is a complex process that requires a professional. Besides knowing how tree species, tree condition and tree age relate to tree safety, this person must be able to identify hazardous tree defects such as dead wood, weak branch unions, cracks, cankers, decay, poor tree architecture, and root problems.

For the purpose of the *Tree Resource Improvement and Maintenance* cost share program, hazard tree evaluation should be performed using most recent nationally accepted standards and best available technology by either an International Society of Arboriculture (ISA) Certified Arborist (see ISA's website search at www.isa-arbor.com/faca/findarborist.aspx) or a Society of American Foresters (SAF) Certified Forester www.safnet.org/certifiedforester/findcertifiedforester.cfm .

TREE PLANTING SPECIFICATIONS

Selecting Trees

Consider the limitations of the planting site, the purpose for the tree, and each tree's unique growing requirements before selecting the type of tree to be purchased. Before purchasing check to be sure that the new tree does not have a great deal of soil added over the root flare. The root flare is the point where the top major roots extend out from the tree trunk. Unfortunately many new trees have the root flare buried under several inches of soil. This is to be avoided if possible or must be corrected.

Determine the Proper Planting Depth
Trees should be planted with the root flare (i.e., the top major roots) even with the final grade. Trees planted at the wrong depth do not develop well and may have shortened life spans. Excess soil should be removed before planting and the tree planted at the correct depth.

For burlaped trees, gently poke a stiff wire through the burlap next to the tree trunk until you hit a root. Note the depth. Check in two or more locations around the trunk. Leave the burlap in place to do this to make moving the tree easier. The distance from the buried root to the bottom of the ball is the correct depth to dig your hole. Carefully remove the excess soil from the top of the root ball once it is in the planting hole. Container trees should have the soil carefully removed from the top exposing the root flare and then planted.

The Planting Hole
Excavate a site at least twice the diameter of the rootball and the deep enough to place the root flare even with or up to one inch higher than the soil line. Handle the tree by the rootball, not the trunk. Be sure the rootball or container soil rests on solid ground to prevent settling.

Carefully cut twine wrapped around the stem at the top of the root ball.
Be sure to remove:

1. All tags, labels and strings
2. The wire basket from around the root ball
3. Any container holding the root system
4. Burlap from at least the top half of the root ball
5. All excess soil on top of the ball just exposing the root flare

Backfill Soil
Make sure the tree is straight before backfilling. Use the same soil that came out of the pit. Finely stir the soil and remove any stones or debris. Avoid using potting soil, peat moss or other amendments. Fill the hole halfway, watering thoroughly as you go, then finish backfilling. Work the soil around the ball gently so that no air pockets are left. Firm the soil so the tree is vertical and adequately supported, but do not pack the soil.

Water
Saturate the entire backfilled soil with water. A slow gentle soaking is preferable. Add more soil if needed to compensate for settling.

Mulch
Cover smoothed soil with 3 inches of wood or bark chips shaped in a doughnut 2-3 feet wide leaving a small gap near the trunk. Do not mound mulch onto the trunk of the tree. Black plastic, grass clippings, or sawdust shall not be used as mulch. Keep mulch weed free. Replace as needed.

Pruning
Remove **only** broken or badly deformed branches the first year. Begin a regular pruning program the second or third year after planting

The following is optional or not recommended:

Stakes
Stakes may be used to prevent shifting of the root ball or to protect the stem from mowing equipment but are not required. If needed, the tree should be guyed strongly enough to provide support, but flexibly enough to allow 6-8 inches of sway. Drive one or more stakes near the tree but not through the roots.

The best guying materials are wide and flexible, such as plastic horticultural tape or canvas webbing. Do not use wire in hose. All guys/ties should be placed low on the trunk. Remove guys/ties as soon as the tree can stand alone – about 3 months but no longer than a year.

Trunk wrap
Research indicates that trunk wraps provide little, if any benefit to trees. In fact, they can encourage damaging insects or disease-causing fungi. Avoid using trunk wraps unless specifically recommended.

Planting in Compacted Soils

To test for compacted soil, do a simple percolation test. Dig a 12" to 18" deep hole and fill it with water. If any water is still in the hole 12-18 hours later….then you have compacted or heavy clay soils.

Roots need oxygen so excavate a wide, shallow hole which is 3-4 times the width of the rootball or container and only ½ as deep. Mound backfill soil slightly to the top of the root flare covering the entire excavation. This creates a raised planting bed which will improve the tree's performance. Soils which hold excessive moisture may need a subsurface drain tube installed below the root ball.

INVENTORY GUIDELINES

An electronic copy of your inventory will need to be provided to MDC.

When conducting tree inventory you are strongly encouraged to use firms that employ International Society of Arboriculture (ISA) Certified Arborists (see ISA's website search at www.isa-arbor.com/faca/findarborist.aspx) or a Society of American Foresters (SAF) Certified Forester http://www.safnet.org/certifiedforester/findcertifiedforester.cfm .

You are free to use any software package you desire as long as **all data collected is compatible with i-Tree Streets**. i-Tree is a state-of-the-art software suite from the USDA Forest Service that provides analysis and benefits assessment tools for trees. The i-Tree Streets tool will allow you to quantify the dollar value of annual environmental and aesthetic benefits: energy conservation, air quality improvement, CO_2 reduction, stormwater control, and property value increase. More information on the i-Tree software suite of tools can be found at www.itreetools.org

Here are a few key points to remember:

- Purchasing procedures established by your community will guide how you select the vendor that completes the work. You are strongly encouraged, but not required to bid this work out. There are SAF Certified Foresters and ISA Certified Arborists in Missouri who are capable of doing the work.
- Be sure you have a written agreement with the vendor you select outlining what data will be collected, timelines, what happens if corrections are needed, payment, etc.
- Collect only the data you are going to use. You must collect at minimum tree species, location, size, condition, and maintenance needs. When capturing additional information be sure you have a use for that data. There is no sense in paying for something you will not use.
- Carefully consider how your community will use the tree data when deciding on how to map tree locations. GPS locations are not required by this grant and should only be collected if your community has the ability to use that data.
- When bidding out this project use care in crafting your specifications.
  - Ask for 2-3 references or examples of previous work.
  - Review the sample management plan that each bidder prepares to be sure that the format is useful.
  - Be sure that the software package that is used by the vendor is compatible with your current system, i-Tree software, and you understand how to use the program.
  - Give careful consideration to the insurance coverage you require to be sure that it is not excessive for the type of work they will be doing.
  - In reference to GPS coordinates for trees, be sure you and the contractor agree on the degree of accuracy required. Within 3 feet? Within 15 feet? There is no right or wrong answer. Just be sure you all agree on what is expected and that the agreed upon definition of 'accurate' is captured in writing.

INSPECTION SPECIFICATIONS

How Do You Get Your Money?

One you've completed your project you must notify your MDC forester *in writing* that the work has been completed. Please refer to your signed Cooperative Agreement with MDC for the contact information for your local MDC forester.

Your written notification must include copies of all invoices, documentation of all in-kind costs must be on official letterhead, and documentation showing your publicity plan has been implemented. The work will then be inspected by a representative of the MDC.

If your project involves ***tree planting*** the forester will:

- **Verify that tree species matches invoice and grant application**: ID tags should remain on each tree until final inspection to allow the forester to easily verify tree species.
- **Verify the size**: Remember deciduous trees must measure from 1 to 3 inches in caliper and evergreen trees must be 6 to 12 feet in height.
- **Check the tree planting depth**. Make sure tree is planted according to the *Standard Tree Planting Detail*. Trees should not be planted on top of the ground. In compacted soils, the maximum that the rootball should be extended above ground is 1/3 of the total rootball.

- **Check the mulch application**. Mulch should ***not*** be piled against trunk of the tree. See MDC's guide *Mulch: Your Tree's Best Friend,* which can be found at http://mdc4.mdc.mo.gov/Documents/375.pdf
- **Inspect the rootball**. Burlap should be pulled back from the top 1/3 of the root ball or removed completely.
- **Inspect for removal** of staking and wrap ties attached to trunk of tree.

If your project involves an ***educational activity,*** the forester will:

- Request a copy of all printed material
- If a workshop was held, a list of all attendees must be submitted along with the workshop date, time, location, speakers, and topics.

If your project involves ***tree pruning or removal***, the forester will:

- Verify the number and location of all trees pruned and/or removed.
- Verify that all trees were pruned according to *ANSI A300 Tree Shrub and Other Woody Plant Maintenance - Standard Practices*. No work will be approved that does not conform to these standards.

Once your project has passed field inspection, the forester will request payment. It normally takes 4-8 weeks for a check to arrive after the forester requests payment. The final decision on payment rests with the program coordinator, Nick Kuhn. All questions about payment should be directed to her at 573-522-4115 ext 3306 or at Nick.Kuhn@mdc.mo.gov .

COMPLETION TIMETABLE

Deadlines

May 14	Applicants must have consulted with their local MDC Forester
June 1	Applications must be post-marked and arrive in Jefferson City
September	Applicants will be notified of approval status
May 1	Approved projects must be completed and applicants have notified their local MDC forester